

# Positive feasibility study on Amarillo's Posse Gold Project supports 10-year mine life at AISC of \$738 per ounce of gold

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TORONTO, June 02, 2020 - [Amarillo Gold Corp.](#) (Amarillo or the Company) (TSXV: AGC, OTCQB: AGCBF) today announced the results of a positive definitive feasibility study (FS) for its Posse Gold Project on its Mara Rosa Property in Goi s State, Brazil.

The FS supports an open pit mine and carbon-in-leach (CIL) operation with dry stack tailings that has low capital and operating costs and a strong financial return.

## Highlights

*Base case assumes a gold price of \$1,400 per ounce and foreign exchange rate of Brazilian Reals (R\$)4.2 to U.S. dollars (US\$)1.*

*Current market rates assume a gold price of \$1,730 per ounce and foreign exchange rate of R\$5.3 to US\$1.*

*All dollar figures are in US\$ unless otherwise noted.*

- Mine life of 10 years.
- Gold production of 102,000 per year in the first four years, average annual gold production of 84,000 ounces.
- After-tax net present value 5% (NPV 5%) of \$183 million, increasing to \$360 million using current market rates.
- After-tax internal rate of return (IRR) of 25%, increasing to 50% using current market rates.
- Cash cost of \$706 per ounce, decreasing to \$631 per ounce using current market rates.
- All-in sustaining cost (AISC) of \$738 per ounce, decreasing to \$656 per ounce using current market rates.
- After-tax payback of 2.6 years, decreasing to 1.5 years using current market rates.
- Initial capital cost of \$145 million, decreasing to \$125 million using current market rates.
- Gold resources of 1.2 million contained ounces, based on 32 million tonnes grading 1.1 grams per tonne (g/t).
- Gold reserves of 902,000 contained ounces, based on 24 million tonnes grading 1.18 g/t.
- The Company has a strong social license to operate. It has received the Preliminary License and a Protocol of Intent to build the Posse Gold Project was signed with the governor of the State of Goi s on May 25, 2020.

“We are very pleased to complete this important milestone in the development of our flagship Posse Gold Project,” said Mike Mutchler, Amarillo’s Chief Executive Officer. “We expect to receive our License to Install in the third quarter of 2020 and complete our construction financing then as well. Our goal is to break ground in April 2021.”

Our recently completed regional exploration program showed the potential to find more near-surface gold deposits, so we hope to extend our mine life in due course, Mutchler continued. With strong support from the Mara Rosa community, the Goiás State government, and the federal government of Brazil, we are excited to build and operate the Posse Gold Project for the benefit of all of our stakeholders;

#### Summary of key results and assumptions in the definitive feasibility study

Table 1: Production data

Life of mine	9.6 years
Mill throughput tonnes per day	7,000
Mill throughput tonnes per year	2.5 million
Total tonnes to crusher	23,804,804
Contained ounces	902,434
Average grade years 1 to 4	1.43 g/t
Average grade life of mine	1.18 g/t
Average recovery	89.9%
Total gold produced (ounces)	811,023
Average annual gold production years 1 to 4 (ounces)	102,200
Average annual gold production life of mine (ounces)	84,482
Average strip ratio life of mine	4.3

Table 2: Financial model

	Base case	Consensus case	Current case
Assumptions			
Gold price per ounce	\$1,400	\$1,550	\$1,730
R\$ to US\$	4.2	4.8	5.3
Capital cost			
Initial capital cost (capex)	\$133 million	\$122 million	\$115 million
Contingency	\$12 million	\$11 million	10 million
Life of mine sustaining capital	\$21 million	\$18 million	\$17 million
Life of mine total capital	\$166 million	\$151 million	\$141 million
Closure costs	\$5 million	\$4 million	\$4 million
Operating cost <sup>1</sup>			
Mining per tonne processed	\$8.71	\$7.73	\$7.08
Processing per tonne processed	\$9.95	\$9.21	\$8.71
G&A per tonne processed	\$0.75	\$0.69	\$0.66
Tailings haulage and disposal per tonne processed	\$1.00	\$0.89	\$0.81
Contingency per tonne processed	\$0.54	\$0.49	\$0.47
Total operating cost per tonne processed	\$20.94	\$19.01	\$17.73
Life of mine average cash cost per gold ounce	\$706	\$658	\$631
Life of mine AISC per gold ounce	\$738	\$686	\$656
Financial analysis <sup>1</sup>			
Pre-tax NPV 5%	\$273 million	\$405 million	\$538 million
Pre-tax IRR	35%	52%	69%
After-tax NPV 5%	\$183 million	\$271 million	\$360 million
After-tax IRR	25%	38%	50%
After-tax payback	2.6 years	1.9 years	1.5 years
Tax rate	34%	34%	34%

#### Notes

<sup>1</sup>See note on Non-IFRS financial measures.

Totals may not sum due to rounding.

### Sensitivity analysis

The feasibility study shows that the Posse Gold Project is highly leveraged to the price of gold. A 10% increase in the price of gold generates a 30% increase in the after-tax NPV 5%.

Table 3: Sensitivity to price of gold

Gold price per ounce	\$1,200	\$1,300	\$1,400	\$1,500	\$1,600	\$1,700	\$1,800	\$1,900	\$2,000
R\$ to US\$	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
After-tax NPV 5% (millions)	\$106	\$145	\$183	\$221	\$259	\$297	\$335	\$373	\$411
After-tax IRR	16%	20%	25%	29%	34%	38%	42%	46%	50%
After-tax payback (years)	3.4	3.0	2.6	2.3	2.1	1.9	1.8	1.6	1.5

Table 4: Sensitivity to foreign exchange

Gold price per ounce	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400
R\$ to US\$	3.0	3.4	3.8	4.2	4.6	5.0	5.4	5.8	6.2
After-tax NPV 5% (millions)	\$74	\$123	\$157	\$183	\$205	\$223	\$239	\$252	\$264
After-tax IRR	9%	15%	21%	25%	29%	33%	36%	39%	42%
After-tax payback (years)	4.5	3.5	3.0	2.6	2.4	2.1	2.0	1.8	1.7

### About the feasibility study

SRK Consultores do Brasil Ltda (SRK) compiled the definitive feasibility study with input from other engineering companies and consultants.

It sets out the mining method and schedule, pit design, and tailings management. It includes associated costs and an economic model. It also updates the mineral resource model, based on additional drilling and metallurgical testing.

The following companies contributed to the study:

- SRK &#8211; Mining, Mineral Reserves and economic analysis
- Australian Exploration Field Services, Australia &#8211; Geology and Mineral Resources
- Aurifex Pty Ltd, Australia &#8211; Mineral processing and metallurgical testing
- Ausenco do Brasil Engenharia Ltda. &#8211; Recovery methods and infrastructure
- DBO Engenharia Ltda, Brazil &#8211; Environmental and permitting studies
- GeoHydroTech Engenharia, Brazil &#8211; Filtered tailings pile, waste dumps, and water dam
- Ramboll, Brazil &#8211; Mine closure.

### About the Posse Gold Project

The Posse Gold Project (Posse or the Project) is located on the Mara Rosa Property in the State of Goi s, central Brazil, approximately six kilometres north of the town of Mara Rosa. The Project encompasses a land area of 2,552 hectares across three mining concessions plus numerous exploration leases in areas surrounding the Posse mine area.

The Project infrastructure will consist mainly of the processing plant, buildings, power line, water dam, filtered tailings pile, waste dumps, and low grade stockpile. The Project access road and most of the service roads already exist, minimizing earthworks and clearing vegetation. A 67-kilometre 138 kilovolt transmission line linking Porangatu and the mine site will need to be built.

A recently completed regional exploration program on the Mara Rosa Property showed potential to find

near-surface gold deposits along the Posse North Trend (see Amarillo's news release dated May 5, 2020). Mineralization was discovered up to four kilometres northeast of the Posse Gold Deposit, which remains open at depth to the southwest. These mineralized targets to the northeast provide additional opportunities to expand the resources at Mara Rosa.

#### Environmental studies and permitting

On May 25, 2020, Amarillo signed the Protocol of Intent to build the Posse Gold Project with the Government of the State of Goiás. The Protocol of Intent establishes the conditions for developing an industrial mining plant and outlines the government's formal support of the Project. It is an important step towards receiving the License to Install (LI), expected in the third quarter of 2020.

Amarillo applied for the LI in December 2019 and made a key modification to the Project as a result. The conventional tailings storage facility has been replaced with a dry stack filtered tailings pile and associated filtration plant. Although this modification increased the Project's capex, it will reduce the environmental risk while significantly adding to the social license for the Project.

The implementation of a tailings filtered pile will significantly reduce the raw water demand from the nearby Rio do Ouro from 720 cubic metres per hour (m<sup>3</sup>/h) to 136 m<sup>3</sup>/h. In late 2019, Amarillo applied for a water use permit from the National Water Agency and expects to receive it very soon.

Amarillo completed an environmental impact assessment in 2015. This is a key part of the licensing process and is submitted to the regulatory agencies with the application for the Preliminary License (LP). The State of Goiás approved Amarillo's LP in 2016.

The Company also has a mine closure plan that includes a number of reclamation activities distributed over pre-closure, closure, and post-closure periods.

#### Mining

The Posse Gold Project will use conventional drill, blast, load, and haul techniques for all mining areas and rock types. All of the fresh rock and 30% of the saprolite will be blasted and loaded with small excavators (74-tonne operating weight) into on-road mining trucks (45-tonne capacity), and hauled to the primary crusher, low grade stockpiles, or waste dumps. Direct mining will be applied to soft material such as soil and fill materials.

The ore and ore/waste contact materials will be mined in five-metre high benches for selectivity purposes, while 10-metre double benches will be adopted for waste where there is no risk of dilution or ore loss. The mining method will generate variable quantities of low grade ore that will require the use of stockpiles. Front-end loaders will provide run-of-mine feed and stockpile re-handling. The mined waste will be distributed into six waste dumps.

The mine schedule contemplates a production target of 2.5 million tonnes per year with a maximum annual rock movement (ore and waste) of 20.0 million tonnes a year. Using a variable cut-off grade strategy, high grades will be mined in the early periods while the low grades will be left to the end of the mining sequence.

The life of mine sequence encompasses a 15-month pre-stripping phase followed by 7.9 years of primary mining and, finally, 1.7 years of re-handling low grade ore.

#### Processing and recovery

The Posse plant will process 2.5 million tonnes per year. The processing includes crushing, milling, pre-leach thickening, pre-oxidation and CIL adsorption, desorption, regeneration, and gold room. The process flow encompasses tailings detoxification and filtration. The filtered tailings will be transported to a lined dry stack tailings pile.

The process flow sheet proposed for the Project involves well proven technologies in the gold processing industry, so no unusual risks are anticipated.

Filtration testing at nominal slurry densities between 40% and 50% solids by weight (typical of unthickened process tailings) has shown filtered solids can be generated at moisture contents that will allow handling and placement. Plate and frame filter presses were selected as these are the most common equipment used for this process.

Testing of Posse samples showed consistent leach extractions in the 90% range. Samples selected for metallurgical testing represented the deposit spatially and lithologically. Recoveries were not sensitive to location or lithology.

Deleterious elements like arsenic or mercury were not present in the samples tested.

#### Capital and operating costs

##### Capital cost

The capital cost estimate for the Project is broken down by area including mining, crushing, processing plant, and associated infrastructure.

Ausenco developed the processing and on-site infrastructure. Amarillo estimated the filtered tailings pile, water dam, waste dumps, power transmission line, mining, and owner's cost. SRK reviewed the capital cost buildup and quotes for all areas except the process plant, tailings filtration plant, and on-site infrastructure.

All pre-production costs are considered capital cost. The estimate is based primarily on quotes from vendors (materials, supplies, equipment, and installation) and mining contractors (drilling, blasting, and mining during the pre-stripping).

The mine closure cost is estimated to be \$4.92 million, including all activities related to pre-closure, closure, and post-closure phases.

Table 5: Capital cost estimate summary

	Cost (\$000s)
Processing plant and infrastructure	87,145
Power line	7,778
Mining (pre-stripping)	8,751
Waste dumps and low grade stockpile	5,199
Water dam	1,203
Filtered tailings pile	5,732
Owner's cost	11,492
Working capital	6,320
Subtotal	133,621
Contingency	11,588
Total initial capital cost	145,209
Sustaining & tailings and waste piles (including contingency)	20,516
Total life of mine capital cost (including working capital)	165,724
Closure (including contingency)	4,920

##### Notes

Estimated using base case of R\$4.2 to US\$1 and US\$1,400 gold.  
Totals may not sum due to rounding.

#### Operating cost

The operating cost is broken down by area including mining, processing, G&A, owner's cost, and tailings management.

Amarillo estimated the mining and tailings costs based on quotes from contractors. Ausenco estimated the processing and G&A operating cost.

Table 6: Operating cost estimate summary per tonne processed over life of mine

	Operating cost (\$)
Mining	8.71
Processing	9.95
G&A	0.75
Tailings haulage and disposal	1.00
Contingency	0.54
Total	20.94

#### Notes

Estimated using base case of R\$4.2 to US\$1 and US\$1,400 gold.  
Totals may not sum due to rounding.

#### Mineral Resource Estimate

A Mineral Resource can only be declared for material that has the potential for economic extraction at some point in the reasonable future. Mineral Resources are reported at a cut-off grade that meets this criterion and do not include material that has no reasonable potential to be mined and processed.

In the economic model of the Posse Deposit, the lowest grade of mineable ore is 0.37 g/t gold. Consequently, the cut-off grade for the Mineral Resource has been set at 0.35 g/t. The Mineral Resource Estimate includes the Mineral Reserves (see below).

Table 7: May 2020 Mineral Resource Estimate

Category	Tonnes (millions)	Grade (g/t gold)	Contained gold (000 ounces)
Measured	14	1.2	510
Indicated	19	1.1	640
Total M&I	32	1.1	1,200
Inferred	0.1	0.6	1.7

#### Notes:

- A gold price of \$1,500/oz is assumed
- Cut-off grade of 0.35 g/t used
- Reported to two significant figures and columns may not sum due to rounding

#### Mineral Reserve Estimate

A Mineral Reserve is that part of the Measured and/or Indicated Resources which, after the application of all relevant economic, legal and technical factors, results in an estimated tonnage and grade which is the basis of an economically viable project.

SRK estimated Posse's Mineral Reserves based on guidelines set out by the Canadian Institute of Mining Metallurgy and Petroleum. SRK identified the economic portion of the Measured and Indicated

Resources as 23.8 million dry tonnes grading 1.18 g/t gold.

Table 8: May 2020 Mineral Reserve Estimate

Category	Diluted dry tonnes (millions)	Diluted grade (g/t gold)	Contained gold metal (000 ounces)	Estimated gold recovery (%)	Recoverable gold metal (000 ounces)
Proven	11.8	1.20	456	89.9	410
Probable	12.0	1.16	446	89.8	401
Total	23.8	1.18	902	89.9	811

*Notes:*

- A gold price of US\$1,400/oz is assumed
- An exchange rate of R\$4.20 to US\$1.00 is assumed
- Mineral reserves are based on measured and indicated mineral resources only
- Mineral reserves are above an economic cut-off grade of 0.37 g/t gold
- Columns may not sum due to rounding

Next steps

With the definitive feasibility study now complete, Amarillo can work with its financial adviser, Auramet International LLC, on financing the Project. Preliminary discussions have already begun with various interested parties.

The Company has applied for its License to Install, which it expects to receive in the third quarter of 2020.

Amarillo plans to start acquiring bids for a contract to provide engineering and procurement support for the Project.

Construction-level engineering and procurement will begin shortly, with the goal of starting construction in April 2021, commissioning in the third quarter of 2022, and targeting commercial production in the fourth quarter of 2022.

Webinar

Amarillo will host a conference call and webcast on June 4, 2020 at 10:00 a.m. eastern time to discuss the results of the feasibility study.

North American call-in number: 1-833-900-1839

International call-in number: 1-956-394-3586

Link to live webcast: <https://edge.media-server.com/mmc/p/4kgquzva>

The presentation slides will also be available under the investors/presentations tab of the Company's website ([www.amarilogold.com](http://www.amarilogold.com)).

Filing of updated technical report

Amarillo will file a technical report prepared in accordance with the requirements of NI 43-101 under its corporate profile on SEDAR within 45 days of this news release.

Qualified persons

The following people, by virtue of their education, experience and professional association, are considered Qualified Persons (QP) as defined in the NI 43-101 standard, for this news release. They are all members in

good standing of appropriate professional institutions and have approved the scientific and technical disclosure in this news release.

Paulo Laymen, BEng/MEng (Mining), Chilean Mining Commission (RM), MAusIMM, SRK Principal Consultant (Mining). Paulo has nearly 20 years mining experience in South America, Europe, Africa and Middle East. He has worked in a range of roles including mine planning and operation manager of open pit and underground mines. Paulo is a QP for Mineral Reserves and, in that role, has completed a wide variety of feasibility studies and NI 43-101/JORC reports.

Keith Whitehouse MAusIMM CP (Geo), AEFS Principal Consultant (Geology). Keith has 40 years of experience in the resource sector with over 20 years of mineral resource estimation experience and holds an AusIMM Professional Certificate in the JORC Code. He has had a close involvement in the Posse Project for over 10 years. Keith has acted as a QP/Competent Person on numerous NI 43-101 and JORC reports.

Stuart Smith FAusIMM, Principal Metallurgist with Aurifex Pty Ltd. Stuart has 35 years of experience in predominantly gold based mining projects encompassing operations, design, commissioning and project development aspects as well as undertaking due diligence works for both financiers and owners undertaking M&A. Stuart has been providing metallurgical test work and sundry process definition works for Amarillo on the Posse Project since 2017. He has experience providing input to a number of NI 43-101 reports in the field of metallurgy and process engineering.

Robert Raponi, Professional Engineer (Ontario), Ausenco Principal Consultant (Metallurgy). Robert is a Senior Metallurgist and Mineral Processing Engineer, with over 35 years of experience in operations, engineering, and consulting on gold processing methods and technologies. Robert is a recognized SME in gold recovery and processing, and has acted as a QP on numerous NI 43-101 Reports.

#### Non-IFRS financial measures

The Company has included certain non-IFRS financial measures in this news release. These measures, which include total cash cost, total cash cost per ounce, AISC, and AISC per ounce, are not recognized under IFRS and do not have a standardized meaning prescribed by IFRS. As a result, these measures may not be comparable to similar measures reported by other companies.

Each of these measures used are intended to provide additional information and should not be considered in isolation or as a substitute for measures in accordance with IFRS.

Non-IFRS financial measures used in this news release and common to the gold mining industry are defined below.

#### Total cash cost and total cash cost per ounce

Total cash cost reflects the cost of production. The total cash cost reported in the FS includes costs related to mining, processing and water treatment, general and administration for the mine, off-site, refining, transportation, and royalties.

Total cash cost per ounce is calculated as total cash cost divided by payable gold ounces.

#### AISC and AISC per ounce

AISC reflects all the expenditures that are required to produce an ounce of gold from operations.

The AISC reported in the FS includes total cash cost, sustaining capital, and closure cost.

AISC per ounce is calculated as AISC divided by payable gold ounces.

#### About Amarillo



[Amarillo Gold Corp.](http://www.amarillogold.com) ([www.amarillogold.com](http://www.amarillogold.com)) is advancing two gold projects in Brazil. Both are in mining-friendly states and have excellent nearby infrastructure.

The development stage Posse Gold Project on its Mara Rosa Property in Goi s State has received the main permit that provides social and environmental permission for mining. Work is underway on receiving the License to Install.

The advanced exploration stage Lavras do Sul Project in Rio Grande do Sul State has more than 22 prospects centered on historic gold workings.

[Amarillo Gold Corp.](http://www.amarillogold.com) trades on the TSXV under the symbol AGC, and on the OTCQB under the symbol AGCBF.

For further information, please contact

Mike Mutchler	Annemarie Brissenden
President & CEO	Investor Relations
416-294-0736	416-844-6284
<a href="mailto:mike.mutchler@amarillogold.com">mike.mutchler@amarillogold.com</a>	<a href="mailto:annemarie.brissenden@amarillogold.com">annemarie.brissenden@amarillogold.com</a>

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Forward-looking statements

This news release contains forward-looking statements regarding the Company's current expectations regarding future events, including its business, operations and condition, and management's objectives, strategies, beliefs and intentions.

Various factors may prevent or delay our plans, including but not limited to, the trading price of the common shares of the Company, capital market conditions, impacts from the coronavirus or other epidemics, counterparty risk, TSXV approval(s), contractor availability and performance, weather, access, mineral and gold prices, and success and failure of the exploration and development carried out at various stages of the program.

Permission from the government and community is also required to proceed with future mining production. Readers should review the Company's ongoing quarterly and annual filings, as well as any other additional documentation comprising the Company's public disclosure record, for additional information on risks and uncertainties relating to these forward-looking statements.

Readers should also review the risk factors applicable to junior mining exploration companies generally to better understand the variety of risks that can affect the Company. The Company undertakes no obligation to update publicly or otherwise revise any Forward-looking statements whether as a result of new information or future events or otherwise, except as may be required by law.

PDF available: <http://ml.globenewswire.com/Resource/Download/55dd0cab-013e-4729-96d7-f74ea66d3afa>

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